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ABSTRACT

Two intruments for evaluating the school plant are presented in this monograph. The first enables districts to appraise the effectiveness of school maintenance programs and plan for future maintenance needs. The eight aspects of maintenance covered relate to the exterior of the building, the interior, special classrooms, the electrical system, the plumbing system, the heating and ventilating system, the air conditioning system, and the roof. A separate checklist is provided as a guide for assessing each aspect. The second instrument--for general appraisal of the school site--can be used when considering locations for new facilities, selecting sites for closing, or determining the need for landscaping or structural changes. Both instruments use a five-point rating scale. The monograph also makes recommendations concerning who should do the inspection and discusses how the results should be interpreted and used. (PGD)

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Inspecting the School Plant

Monograph 2

September 1985

EA 018 223

THE OPERATION AND MAINTENANCE OF OUR SCHOOLS

Monograph 2

Inspecting the School Plant

WISCONSIN DEPARTMENT OF PUBLIC INSTRUCTION

HERBERT J. GROVER, STATE SUPERINTENDENT

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Bulletin No. 6105

THE OPERATION AND MAINTENANCE OF OUR SCHOOLS

Monograph 2

Inspecting the School Plant

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INTRODUCTION

PURPOSE OF THE INSPECTION

School buildings are evaluated for several purposes. At times they are evaluated to see if they meet the standards of governing and regulatory agencies. Other times educators might evaluate schools to determine if the atmosphere promotes healthy interaction, wholesome feelings, and high morale. More often, parents, teachers, and administrators evaluate schools to determine their adequacy for instructional purposes. It is hoped that this document will evaluate and help structure the school's maintenance program.

This monograph, the second in our series, contains two evaluation instruments for the school plant. The first instrument focuses on assessing building maintenance. It consists of eight parts: exterior maintenance, interior maintenance, special classrooms, the electrical system, the plumbing system, the heating and ventilating system, the air conditioning system, and the roof. It is intended to help districts appraise the effectiveness of school maintenance programs and plan for future maintenance needs.

The second instrument is for general appraisal of the school site. It might be used when initially considering locations for building a new school or annex, for use in determining which schools should be closed or which schools need landscaping or structural changes. It is expected that items on this checklist will remain more stable than those on the maintenance checklist.

Our schools represent a major investment of public funds. They should be kept operating effectively and safely. It is recommended that a thorough annual inspection be made of the school plant to see that this is being done.

HOW TO USE THE CHECKLISTS

The first instrument has eight separate checklists for assessing the building maintenance. Each can be used and scored separately. Since all possible maintenance needs cannot be listed, assessors are urged to view the instrument as a guide only. They are encouraged to search for and record other problems, and to revise the form as needed. The final mean score for each checklist should be adjusted for appended or deleted items.

For schools with sections of different age and condition, it may be helpful to score each addition separately.

The second instrument is comprised of three sections. Sections A, B, and C are intended for use when initially considering a location for building, while A and B are also for use with existing campuses.

Both instruments use a five-point scale with the following interpretation:

5 - Outstanding	The item is in exceptionally fine condition.
4 - Good	The condition is better than average.
3 - Adequate	The condition is sufficient for the required purpose.
2 - Inadequate	The condition is unacceptable due to instability, unsightliness, or some other condition.
1 - Missing but Needed	Items or conditions are missing but required.

Assessors should note that these are not absolute scores but personal judgments about the condition of the school plant.

WHO SHOULD DO THE INSPECTION?

It is recommended that a committee, rather than a single assessor, inspect the school plant with this instrument. This is done to insure reliability, decrease individual biases, and benefit from the collective expertise of the committee.

Districts may choose to solicit community volunteers and/or hire professionals to do the inspection. The number of individuals chosen for the committee will depend on the size of the district and the amount of time each assessor has to devote to the task. Engineers, architects, insurance agents, construction workers, and other community professionals may be valuable committee members. It is also recommended that lay citizens, as well as building experts and school personnel, be involved in the process to insure that committee membership be representative of the community (Sumption and Landes, 1957).

The assessment can be divided among the members in various ways. For example, members may choose to work in pairs, with each pair inspecting every school in the district on only one or two items, such as the heating, ventilating, and air conditioning (HVAC) system and the plumbing system. For small districts, another arrangement might be for each committee member to inspect every aspect of each school. It is hoped that the committee membership, as well as the inspection checklist itself, be tailored to the needs of each district.

INTERPRETING AND USING THE RESULTS

The results of the inspection can be used in a number of ways. First the results must be tabulated and recorded in a meaningful fashion. One method is found in Figure 1, Maintenance Inspection Matrix (Duncan and Menefee, 1980). The vertical components

Figure 1 - Maintenance Inspection Matrix of Mean Scores

Schools	Exterior	Interior	Special Classrooms	Electrical System	Plumbing	Heating and Ventilating	Air Conditioning	Roof
Lincoln Elementary	4.9	3.8	4.9	3.7	2.6	4.2	3.2	3.1
Martin Luther King, Jr. Elem.	3.2	3.6	4.2	4.3	2.2	2.7	3.3	4.2
John Muir Elementary	4.6	3.8	4.8	3.9	2.4	4.3	4.3	4.0
Curie Middle School	3.1	2.2	2.4	2.9	1.7	2.3	2.0	2.1
Thoreau Middle School	3.0	4.2	4.6	3.0	2.1	4.3	3.3	4.0
Badger High School	4.2	3.9	3.4	3.7	2.3	3.0	3.4	2.7

come from the eight maintenance checklists found in the back of this monograph. The numbers are the mean scores for each school in an imaginary district.

By recording the ratings on a matrix, administrators can study the maintenance needs of each site (horizontal analysis), or the needs of all schools on a single maintenance factor (vertical analysis). Site analysis identifies the schools where special maintenance efforts are required or negligence needs to be corrected. It notes where special attention must be given within each school as well. In this district, for example, it is apparent that Curie Middle School needs attention in all maintenace areas, but especially in plumbing.

Analysis of maintenance factors identifies the need for changing maintenance methods or making district-wide improvements (e.g. the electrical systems in all schools are below standard, exterior maintenance scores are low at all schools due to the need to repave all parking lots, etc.). Our example indicates that the plumbing systems in all schools are less than adequate.

The matrix data can also be compared from year to year to see if deficiencies are corrected and current resource allocations maintain the standards established (Duncan and Menefee, 1980).

The written comments on each checklist will also provide helpful information. They should be considered, along with the quantitative data, to develop a maintenance plan for the district. Assistance in drafting the plan might come from community agencies, the fire department, the building department of a county or city, maintenance contractors, lay people, school employees, and other members of the community (Glass, 1984).

Questions which might be asked at this point include:

1. What items need to be replaced?
2. When should they be replaced?
3. What is the replacement cost?
4. Which items need repair?
5. What is the true cost of deferring maintenance? (Golz, 1984).

During the planning stage you may wish to prioritize the maintenance projects, develop timetables, and label the projects. For example, is the project safety related, program related, or related to a cost or energy saving? (Glass, 1984).

The results of the findings and the maintenance plan should be presented to the administrators and school board for approval, preferably before the annual budget is approved. It would then be prudent to draft a five-to-ten year maintenance budget. At this point the results might be circulated throughout the buildings and released to the press (Glass, 1984).

I. EXTERIOR MAINTENANCE CHECKLIST

Date _____

Organizational unit _____

Maintenance Assessors _____

If some of the following questions are not applicable, draw a line through them and do not assign them point values.

		Missing but Needed	Inadequate	Adequate	Good	Outstanding	NOTES
A.	WALLS						
1.	Masonry in good condition	1	2	3	4	5	
2.	No cracks	1	2	3	4	5	
3.	Paint in good condition	1	2	3	4	5	
4.	No graffiti	1	2	3	4	5	
5.	Windows						
a.	Panes intact	1	2	3	4	5	
b.	Frames and weatherstripping in good condition	1	2	3	4	5	
c.	No holes in screens	1	2	3	4	5	
d.	No water or air leakage	1	2	3	4	5	
B.	DOORS						
1.	Operate properly	1	2	3	4	5	
2.	Frames and weatherstripping in good condition	1	2	3	4	5	
3.	No rotting or rusting	1	2	3	4	5	
4.	No water or air leakage	1	2	3	4	5	
5.	Hardware in good condition	1	2	3	4	5	
6.	Other	1	2	3	4	5	
C.	FENCING						
1.	No holes or rust spots	1	2	3	4	5	
2.	Gates function properly	1	2	3	4	5	
3.	Other	1	2	3	4	5	

I. Exterior Maintenance Checklist

1 - Missing but Needed
2 - Inadequate
3 - Adequate
4 - Good
5 - Outstanding

Date _____

Organizational unit _____

D.	PARKING AREAS AND DRIVES						
	1. Free of holes and bubbles	1	2	3	4	5	
	2. Painted lines visible	1	2	3	4	5	
	3. Other _____	1	2	3	4	5	
E.	LANDSCAPING						
	1. No ground erosion	1	2	3	4	5	
	2. No dead or diseased trees	1	2	3	4	5	
	3. Other	1	2	3	4	5	

--Exterior Maintenance--

a. Total points _____
b. Number of questions answered _____
c. Mean value (a ÷ b) _____

II. INTERIOR MAINTENANCE CHECKLIST

Date _____

Organizational unit _____

Maintenance Assessors _____

If some of the following questions are not applicable, draw a line through them and do not assign them point values.

		Missing but Needed	Inadequate	Adequate	Good	Outstanding	NOTES
A.	FLOORS						
	1. Wood floors						
	a. No pitted areas or warping	1	2	3	4	5	
	b. Good finish	1	2	3	4	5	
	2. Hard floor coverings	1	2	3	4	5	
	a. No pitted areas	1	2	3	4	5	
	b. Good finish	1	2	3	4	5	
	c. No missing tiles	1	2	3	4	5	
	3. Carpet						
	a. No holes, thin spots, or frayed edges	1	2	3	4	5	
	b. No stains	1	2	3	4	5	
	4. Other	1	2	3	4	5	
B.	WALLS						
	1. No cracks or holes	1	2	3	4	5	
	2. Paint in good condition	1	2	3	4	5	
	3. No stains or graffiti	1	2	3	4	5	
	4. Other	1	2	3	4	5	
C.	CEILINGS						
	1. No cracks, bulges, or leaks	1	2	3	4	5	
	2. Paint in good condition	1	2	3	4	5	
	3. No stains	1	2	3	4	5	
	4. All tiles in place	1	2	3	4	5	
	5. Other	1	2	3	4	5	

II. Interior Maintenance Checklist

Date _____

Organizational unit _____

1 - Missing but Needed
2 - Inadequate
3 - Adequate
4 - Good
5 - Outstanding

D.	WINDOWS		
1.	Putty and caulking sufficient	1 2 3 4 5	
2.	Glass intact with no cracks	1 2 3 4 5	
3.	Window hardware functions properly	1 2 3 4 5	
4.	No rotting or rusting	1 2 3 4 5	
5.	Hardware of shades, blinds, and curtains operates smoothly	1 2 3 4 5	
6.	No holes or stains in shades, blinds, or curtains	1 2 3 4 5	
7.	Other	1 2 3 4 5	
E.	DOORS		
1.	Hinges oiled and function smoothly	1 2 3 4 5	
2.	Locks and latchset function properly	1 2 3 4 5	
3.	Miscellaneous door hardware present and functioning	1 2 3 4 5	
4.	Surface smooth and graffiti-free	1 2 3 4 5	
5.	No rotting or rusting	1 2 3 4 5	
6.	Other	1 2 3 4 5	
F.	LOCKERS		
1.	Hardware functions well	1 2 3 4 5	
2.	No stains or graffiti	1 2 3 4 5	
3.	Doors in place with no dents	1 2 3 4 5	
4.	Other	1 2 3 4 5	
G.	CLASSROOM FEATURES		
1.	Chalkboards and tackboard well painted and free from holes	1 2 3 4 5	
2.	Pupils' wardrobes have no missing hooks or shelves	1 2 3 4 5	
3.	Bookcases sturdy and well painted	1 2 3 4 5	
4.	Other	1 2 3 4 5	
H.	FURNITURE		
1.	Upholstery		
a.	Unstained and free of graffiti	1 2 3 4 5	
b.	Free from holes and rips	1 2 3 4 5	
2.	Frame		
a.	Sturdy	1 2 3 4 5	
b.	Free from scratches and graffiti	1 2 3 4 5	
c.	Hardware present and functioning	1 2 3 4 5	

II. Interior Maintenance Checklist

Date _____

Organizational unit _____

1 - Missing but Needed
2 - Inadequate
3 - Adequate
4 - Good
5 - Outstanding

3. Surface free from graffiti	1 2 3 4 5	
4. Springs unbroken	1 2 3 4 5	
5. Other	1 2 3 4 5	

--Interior Maintenance--

a. Total points _____
b. Number of questions answered _____
c. Mean value (a ÷ b) _____

III. MAINTENANCE CHECKLIST FOR SPECIAL CLASSROOMS

Date _____

Organizational unit _____

Maintenance Assessors _____

_____

_____

_____

If some of the following questions are not applicable, draw a line through them and do not assign them point values.

		Missing but Needed	Inadequate	Adequate	Good	Outstanding	NOTES
A.	ART						
1.	Black-out curtains function well and have no holes	1	2	3	4	5	
2.	Exhaust fans adequately remove dust, fumes, and odors (especially near kiln and darkroom)	1	2	3	4	5	
3.	Sediment traps in sinks function well	1	2	3	4	5	
4.	Storage cabinets lock adequately	1	2	3	4	5	
5.	Other	1	2	3	4	5	
B.	BUSINESS EDUCATION						
1.	Locks function on storage cabinets	1	2	3	4	5	
2.	Room cooled sufficiently for computers	1	2	3	4	5	
3.	Electrical system	1	2	3	4	5	
	a. Master switch functions	1	2	3	4	5	
	b. No frayed cords on machines or extension cords	1	2	3	4	5	
	c. Outlets intact and present in sufficient number	1	2	3	4	5	
4.	Other	1	2	3	4	5	

III. Maintenance Checklist for Special Classrooms

Date _____

Organizational unit _____

1 - Missing but Needed
2 - Inadequate
3 - Adequate
4 - Good
5 - Outstanding

C.	HOME ECONOMICS		
1.	Gas valves and pilots work properly	1 2 3 4 5	
2.	Faucets, drains, and disposals function well	1 2 3 4 5	
3.	Drains and vents for washers and dryers function well	1 2 3 4 5	
4.	Master shut-off switches function	1 2 3 4 5	
5.	Electrical outlets intact and present in sufficient number	1 2 3 4 5	
6.	Exhaust fans function well	1 2 3 4 5	
7.	Smoke detectors function	1 2 3 4 5	
8.	Other	1 2 3 4 5	
D.	INDUSTRIAL ARTS AND VOCATIONAL AGRICULTURE		
1.	Exhaust fans allow adequate air exchange	1 2 3 4 5	
2.	Master shut-off controls for gas and electricity function	1 2 3 4 5	
3.	Locks function for all storage cabinets	1 2 3 4 5	
4.	Smoke detectors function	1 2 3 4 5	
5.	Sediment traps in sinks clear	1 2 3 4 5	
6.	Gasoline and oil interceptors clear	1 2 3 4 5	
7.	Electrical outlets intact and present in sufficient number	1 2 3 4 5	
8.	Other	1 2 3 4 5	
E.	LIBRARIES-INSTRUCTIONAL MATERIAL RESOURCE CENTERS		
1.	Storage cabinets lock adequately	1 2 3 4 5	
2.	Outlets in good condition	1 2 3 4 5	
3.	Black-out curtains function and have no holes	1 2 3 4 5	
4.	Other	1 2 3 4 5	
F.	MUSIC		
1.	Accoustical materials in good condition	1 2 3 4 5	
2.	Instrument storage shelves sufficiently braced and maintained	1 2 3 4 5	
3.	Locks function on all cabinets	1 2 3 4 5	
4.	Other	1 2 3 4 5	

III. Maintenance Checklist for Special Classrooms

Date _____

Organizational unit _____

1 - Missing but Needed
2 - Inadequate
3 - Adequate
4 - Good
5 - Outstanding

G. PHYSICAL EDUCATION

Because schools vary greatly in the facilities and equipment for their physical education programs, the maintenance needs also vary considerably. Rather than address all the possible needs here, it is suggested that maintenance personnel discuss them with the physical education directors.

H. SCIENCE ROOMS

1.	Safety shower functional	1	2	3	4	5	
2.	Master shut-off controls for gas, electricity, and water function properly	1	2	3	4	5	
3.	Eye-wash fountain supplies 15 minutes of water flow	1	2	3	4	5	
4.	Exhaust hood has proper draft and does not redraw air into room	1	2	3	4	5	
5.	Locks function on all storage cabinets	1	2	3	4	5	
6.	Smoke detectors function	1	2	3	4	5	
7.	Lip-edged shelving for chemicals firmly attached to wall	1	2	3	4	5	
8.	High pressure faucets supply adequate pressure	1	2	3	4	5	
9.	Sediment traps in sinks clear	1	2	3	4	5	
10.	Other	1	2	3	4	5	

--Maintenance of Special Rooms--

a. Total points _____
b. Number of questions answered _____
c. Mean value (a ÷ b) _____

IV. ELECTRICAL SYSTEM MAINTENANCE CHECKLIST

Date _____

Organizational unit _____

Maintenance Assessors _____

_____

_____

_____

If some of the following questions are not applicable, draw a line through them and do not assign them point values.

		Missing but Needed	Inadequate	Adequate	Good	Outstanding	NOTES
A.	MAIN SYSTEM						
1.	Sufficient grounding	1	2	3	4	5	
2.	Sufficient capacity	1	2	3	4	5	
3.	Adequate insulation	1	2	3	4	5	
4.	Master shut-off switch works properly	1	2	3	4	5	
5.	Other	1	2	3	4	5	
B.	DISTRIBUTION SYSTEM						
1.	Adequate insulation of wiring	1	2	3	4	5	
2.	Cords in good condition	1	2	3	4	5	
3.	Outlets and switches in good condition	1	2	3	4	5	
4.	No excess of extension cords	1	2	3	4	5	
5.	Other	1	2	3	4	5	
C.	LIGHTING						
1.	Sufficient intensity	1	2	3	4	5	
2.	Fixtures in good condition	1	2	3	4	5	
3.	No broken lamps	1	2	3	4	5	
4.	Other	1	2	3	4	5	
D.	SAFETY SYSTEMS						
1.	Fire alarms work properly	1	2	3	4	5	
2.	Exit signs function	1	2	3	4	5	
3.	Emergency lighting functions	1	2	3	4	5	
4.	Other	1	2	3	4	5	

IV. Electrical System Maintenance Checklist

Date _____

Organizational unit _____

1 - Missing but Needed
2 - Inadequate
3 - Adequate
4 - Good
5 - Outstanding

E. OTHER SYSTEMS						
1. Master clock system functions	1	2	3	4	5	
2. Bells ring synchronously	1	2	3	4	5	
3. Public address system functions	1	2	3	4	5	
4. Intercom functions	1	2	3	4	5	
5. Electrical stage equipment functions	1	2	3	4	5	
6. Other	1	2	3	4	5	

--Electrical System Maintenance--

a. Total points _____
b. Number of questions answered _____
c. Mean value (a ÷ b) _____

V. PLUMBING MAINTENANCE CHECKLIST

Date _____

Organizational unit _____

Maintenance Assessors _____

_____

_____

_____

If some of the following questions are not applicable, draw a line through them and do not assign them point values.

		Missing but Needed	Inadequate	Adequate	Good	Outstanding	NOTES
A.	TOILET ROOMS						
1.	Water closets' seats, valves, and tanks in good condition	1	2	3	4	5	
2.	Urinal valves and drains in good condition	1	2	3	4	5	
3.	Sinks' faucets and drains in good condition	1	2	3	4	5	
4.	Soap and towel dispensers and mirrors in good condition	1	2	3	4	5	
5.	Floor drains intact and clean	1	2	3	4	5	
6.	Walls and shelves in good condition and graffiti-free	1	2	3	4	5	
7.	Other	1	2	3	4	5	
B.	CORRIDORS						
1.	Drinking fountains function with proper water pressure and good drains	1	2	3	4	5	
2.	Faucets and drains in custodians' closets in good condition	1	2	3	4	5	
3.	Other	1	2	3	4	5	
C.	KITCHEN						
1.	Faucets and drains in good condition	1	2	3	4	5	
2.	Disposal is working efficiently and without excessive noise	1	2	3	4	5	
3.	Gas valves function on stoves and dishwashers	1	2	3	4	5	
4.	Other	1	2	3	4	5	

V. Plumbing Maintenance Checklist

1 - Missing but Needed
2 - Inadequate
3 - Adequate
4 - Good
5 - Outstanding

Date _____

Organizational unit _____

D.	MISCELLANEOUS PLUMBING						
1.	Pumps function	1	2	3	4	5	
2.	Softeners function	1	2	3	4	5	
3.	Water heaters maintain water at appropriate temperatures	1	2	3	4	5	
4.	Pipes						
a.	Hot/cold water pipes in good condition and without excessive condensation around them	1	2	3	4	5	
b.	Gas pipes in good condition	1	2	3	4	5	
c.	Waste pipes in good condition	1	2	3	4	5	
5.	Downspouts have no leaks or poor connections	1	2	3	4	5	
6.	Storm water system works well	1	2	3	4	5	
7.	Other	1	2	3	4	5	

--Plumbing Maintenance--

a. Total points _____

b. Number of questions answered _____

c. Mean value (a ÷ b) _____

VI. HEATING AND VENTILATING SYSTEM CHECKLIST

Date _____

Organizational unit _____

Maintenance Assessors _____

_____

_____

_____

If some of the following questions are not applicable, draw a line through them and do not assign them point values.

Check for leaks, loose connections, improper operation, broken or missing equipment, corrosion and dirt, defective gauges and valves, vandalism, and excessive noise of systems.

		Missing but Needed	Inadequate	Adequate	Good	Outstanding	NOTES
	INTERIOR INSPECTION						
A.	BOILER						
1.	Vents and damper operating	1	2	3	4	5	
2.	Insulation in good condition	1	2	3	4	5	
3.	Valves, tubes, burners, and stokers operating	1	2	3	4	5	
4.	Smoke vent and/or breeching function	1	2	3	4	5	
5.	Other	1	2	3	4	5	
B.	PUMPS						
1.	Motors run efficiently	1	2	3	4	5	
2.	Valves well sealed	1	2	3	4	5	
3.	Tanks have no leaks	1	2	3	4	5	
4.	Other	1	2	3	4	5	
C.	TRAPS						
1.	Orifices clear	1	2	3	4	5	
2.	Float operable	1	2	3	4	5	
3.	Other	1	2	3	4	5	
D.	CONVECTORS, UNIT VENTILATORS, AND/OR UNIT HEATERS						
1.	Traps, sheaves, and dampers unblocked	1	2	3	4	5	
2.	Valves function	1	2	3	4	5	
3.	Coils clean	1	2	3	4	5	
4.	Motors and belts in good condition	1	2	3	4	5	
5.	Bearings in good condition	1	2	3	4	5	
6.	Fans in good condition	1	2	3	4	5	
7.	Burner or pilot functions	1	2	3	4	5	
8.	Outside air and combustion air intakes unblocked	1	2	3	4	5	
9.	Valves and regulators function	1	2	3	4	5	
10.	Other	1	2	3	4	5	

VI. Heating and Ventilating System Checklist

1 - Missing but Needed
2 - Inadequate
3 - Adequate
4 - Good
5 - Outstanding

Date _____

Organizational unit _____

E.	FURNACE						
1.	Filter and dampers clean	1	2	3	4	5	
2.	Motor and belts in good condition	1	2	3	4	5	
3.	Burner works efficiently	1	2	3	4	5	
4.	Valve and regulators function	1	2	3	4	5	
5.	Fan runs smoothly	1	2	3	4	5	
6.	Outside air and combustion air intakes unblocked	1	2	3	4	5	
7.	Other	1	2	3	4	5	
F.	CONTROL SYSTEM						
1.	Tubing and wiring in good condition	1	2	3	4	5	
2.	Thermostats accurately control temperatures	1	2	3	4	5	
3.	Switches and valve operators function	1	2	3	4	5	
4.	Other	1	2	3	4	5	

--Heating and Ventilating Maintenance (Interior)--

a. Total points _____
b. Number of questions answered _____
c. Mean value (a ÷ b) _____

VI. Heating and Ventilating System Checklist

Date _____

Organizational unit _____

1 - Missing but Needed
2 - Inadequate
3 - Adequate
4 - Good
5 - Outstanding

EXTERIOR INSPECTION

A.	CHIMNEY AND VENTS		
	1. Masonry intact	1 2 3 4 5	
	2. Metal and flashing in good condition	1 2 3 4 5	
	3. Other	1 2 3 4 5	
B.	FANS		
	1. Dampers and fans operable	1 2 3 4 5	
	2. Screens intact and clean	1 2 3 4 5	
	3. Flashing in good condition	1 2 3 4 5	
	4. Other	1 2 3 4 5	
C.	OTHER PARTS		
	1. Oil tank in good condition	1 2 3 4 5	
	2. Gas pipes in good condition	1 2 3 4 5	
	3. Solar equipment in good condition	1 2 3 4 5	
	4. Duct intake and exhaust areas in good condition	1 2 3 4 5	
	5. Other	1 2 3 4 5	

--Heating and Ventilating Maintenance (Exterior)--

a. Total points _____
b. Number of questions answered _____
c. Mean value (a ÷ b) _____

--Heating and Ventilating Maintenance (Interior and Exterior)--

a. Total points _____
b. Number of questions answered _____
c. Mean value (a ÷ b) _____

VII. AIR CONDITIONING MAINTENANCE CHECKLIST

Date _____

Organizational unit _____

Maintenance Assessors _____

_____

_____

_____

If some of the following questions are not applicable, draw a line through them and do not assign them point values.

		Missing but Needed	Inadequate	Adequate	Good	Outstanding	NOTES
A.	ROOM THERMOSTATS						
1.	Provide adequate control	1	2	3	4	5	
2.	Knobs and switches intact	1	2	3	4	5	
3.	Other	1	2	3	4	5	
B.	COOLING AND CONDENSER COIL						
1.	Filters clean and in working order	1	2	3	4	5	
2.	Fan guards in place	1	2	3	4	5	
3.	Fins in good condition	1	2	3	4	5	
4.	Other	1	2	3	4	5	
C.	COMPRESSOR						
1.	Suction line cool	1	2	3	4	5	
2.	No leaks	1	2	3	4	5	
3.	Control panel wiring in good condition	1	2	3	4	5	
4.	Refrigerant gauges						
a.	Adequate pressure	1	2	3	4	5	
b.	Adequate voltage	1	2	3	4	5	
c.	Adequate amperage	1	2	3	4	5	
5.	Other	1	2	3	4	5	
D.	FANS						
1.	Fan belt tension adequate	1	2	3	4	5	
2.	Bearings greased	1	2	3	4	5	
3.	Fan sheaves and belts in good condition	1	2	3	4	5	
4.	Other	1	2	3	4	5	

VII. Air Conditioning Maintenance Checklist

1 - Missing but Needed
2 - Inadequate
3 - Adequate
4 - Good
5 - Outstanding

Date _____

Organizational unit _____

E. MISCELLANEOUS						
1. Dampers linked and lubricated well	1	2	3	4	5	
2. Insulation in good condition	1	2	3	4	5	
3. Panel door gaskets in good condition	1	2	3	4	5	
4. Panel seams caulked	1	2	3	4	5	
5. Other	1	2	3	4	5	

--Air Conditioning--

a. Total points _____
b. Number of questions answered _____
c. Mean value (a ÷ b) _____

VIII. ROOF MAINTENANCE CHECKLIST

Date _____

Organizational unit _____

Maintenance Assessors _____
_____
_____
_____

If some of the following questions are not applicable, draw a line through them and do not assign them point values.

		Missing but Needed	Inadequate	Adequate	Good	Outstanding	NOTES
A.	GENERAL OBSERVATIONS						
1.	No damp spots or stains on ceilings and walls	1	2	3	4	5	
2.	No standing water on roof	1	2	3	4	5	
3.	No foreign objects, oil, or grease on roof	1	2	3	4	5	
4.	Roof drain and scruppers clean	1	2	3	4	5	
5.	Flashing and counterflashings in good condition	1	2	3	4	5	
6.	No blisters, cracks, or wrinkles	1	2	3	4	5	
7.	Pitch pockets and piping on curbs in good condition	1	2	3	4	5	
8.	Expansion joints in good condition	1	2	3	4	5	
9.	Other	1	2	3	4	5	
B.	SINGLE-PLY ROOFS						
1.	No shrinkage or other deterioration of sheet	1	2	3	4	5	
2.	Rock ballast in good condition	1	2	3	4	5	
3.	Other	1	2	3	4	5	
C.	BUILT-UP ROOFS						
1.	No bare or worn spots	1	2	3	4	5	
2.	No slippage of gravel or membrane	1	2	3	4	5	
3.	No splits, alligatoring, or ridges	1	2	3	4	5	
4.	Other	1	2	3	4	5	

VIII. Roof Maintenance Checklist

1 - Missing but Needed
2 - Inadequate
3 - Adequate
4 - Good
5 - Outstanding

Date _____

Organizational unit _____

D.	SHINGLES						
	1. No curled or split shingles	1	2	3	4	5	
	2. No rusting of valleys or granule loss	1	2	3	4	5	
	3. Other	1	2	3	4	5	
E.	ROOF EDGES						
	1. Parapet walls in good condition	1	2	3	4	5	
	2. No open joints in copings	1	2	3	4	5	
	3. Other	1	2	3	4	5	
F.	CHIMNEYS						
	1. No deteriorated bricks or joints	1	2	3	4	5	
	2. Flue liner in good condition	1	2	3	4	5	
	3. Other	1	2	3	4	5	
G.	SKYLIGHTS						
	1. Secured to supports	1	2	3	4	5	
	2. No broken or cracked glass	1	2	3	4	5	
	3. Glazing in place and tight	1	2	3	4	5	
	4. Other	1	2	3	4	5	

--Roof Maintenance--

a. Total points _____
b. Number of questions answered _____
c. Mean value (a ÷ b) _____

SCHOOL SITE RATING FORM

Date _____

Organizational unit _____

Site Assessors _____

_____

_____

_____

If some of the following questions are not applicable, draw a line through them and do not assign them point values.

		Missing but Needed	Inadequate	Adequate	Good	Outstanding	NOTES
A.	LOCATION						
1.	Site free from unpleasant agricultural or industrial odors and dust	1	2	3	4	5	
2.	Site free from air pollution	1	2	3	4	5	
3.	Site free from disturbing sounds from airports, railways, freeways, and industries	1	2	3	4	5	
4.	Site is free from underground gas pipes and high tension wires and will not be flooded	1	2	3	4	5	
5.	School located near residences, recreation centers, school service centers	1	2	3	4	5	
6.	Site accessible by public transportation	1	2	3	4	5	
7.	Area has fire protection	1	2	3	4	5	
8.	Students walk or are transported a reasonable distance from their homes to school	1	2	3	4	5	
9.	Site is free from business distractions	1	2	3	4	5	
10.	Site is sufficiently remote from hospitals, places of worship, and other centers so that they will not be disturbed by children	1	2	3	4	5	
11.	Other	1	2	3	4	5	

a. TOTAL SCORE FOR LOCATION _____

b. Number of questions answered _____

c. Mean value (a ÷ b)

_____

School Site Rating Form

Date _____

Organizational unit _____

1 - Missing but Needed
2 - Inadequate
3 - Adequate
4 - Good
5 - Outstanding

B. ARRANGEMENT OF BUILDINGS AND ENVIRONMENT

1.	Site and buildings permit safe entry and exit by pedestrians	1 2 3 4 5	
2.	Site and buildings permit safe passage by vehicles	1 2 3 4 5	
3.	Adequate parking space provided	1 2 3 4 5	
4.	Arrangement allows for safe bus loading and disembarking	1 2 3 4 5	
5.	Draining channeled under sidewalks and away from parking areas and buildings	1 2 3 4 5	
6.	Site has a sufficient and safe area for physical education and recreation	1 2 3 4 5	
7.	Electric and telephone wires in safe locations	1 2 3 4 5	
8.	Buildings arranged to take advantage of natural elements and scenery	1 2 3 4 5	
9.	Exterior lighting provided for security and/or night time recreation	1 2 3 4 5	
10.	Buildings are arranged to allow for easy, uncongested pedestrian traffic flow	1 2 3 4 5	
11.	Has fire hydrants which are readily accessible	1 2 3 4 5	
12.	Vegetation is of hardy variety and requires little care	1 2 3 4 5	
13.	Truck deliveries to the school do not endanger children's safety	1 2 3 4 5	
14.	Other	1 2 3 4 5	

a. TOTAL SCORE FOR ARRANGEMENT OF BUILDINGS AND ENVIRONMENT _____
b. Number of questions answered _____
c. Mean value (a ÷ b)

_____

School Site Rating Form

Date _____

Organizational unit _____

1 - Missing but Needed
2 - Inadequate
3 - Adequate
4 - Good
5 - Outstanding

C. SITE DEVELOPMENT*

1.	Site elevation requires a minimum of excavation or fill	1	2	3	4	5	
2.	A minimum of natural features will need to be removed	1	2	3	4	5	
3.	Adequate water lines, sewage disposal, and other utilities can be easily installed	1	2	3	4	5	
4.	Sufficient space exists for storage of vehicles, maintenance equipment, and school supplies	1	2	3	4	5	
5.	Space sufficient for future needs	1	2	3	4	5	
6.	Dimensions of site offer no restriction to planning	1	2	3	4	5	
7.	Surface and subsurface offer no known handicap to planning	1	2	3	4	5	
8.	Other	1	2	3	4	5	

a. TOTAL SCORE FOR SITE DEVELOPMENT _____
b. Number of questions answered _____
c. Mean value (a ÷ b) _____

a. Total points for site _____
b. Number of questions answered _____
c. Mean value (a ÷ b) _____

*Only for use when initially considering a site for school construction

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